



## 2.4 GHz 15 dBi Yagi Antenna

### Antennas Technical Data Sheet

PE51YA1003

#### Features

- 12in low-loss coax lead terminated with a N-Female connector
- 30° beam-width & DC Short lightning protection
- Light weight, UV-stable & UL flame rated radome
- Includes tilt and swivel mast mount
- Can be installed for either vertical or horizontal polarization

#### Applications

- 2.4 GHz ISM Band
- IEEE 802.11b, 802.11g & IEEE 802.11n Wireless LAN
- Directional and multipoint applications
- Bluetooth® & public wireless hotspot
- WiFi & wireless video systems

#### Description

The HyperGain PE51YA1003 Radome Enclosed Yagi WiFi Antenna features high gain and a 30° beam-width. It is ideally suited for directional and multipoint IEEE 802.11b, 802.11g and 802.11n wireless LANs, Bluetooth®, public wireless hotspot applications and other systems operating in the 2.4GHz ISM band. The unique design of this antenna allows it to be installed for either vertical or horizontal polarization.

This WiFi antenna is enclosed within a UV-stable, UL flame rated radome for all-weather operation. The PE51YA1003 antenna is supplied with a 60 degree tilt and swivel mast mount kit.

#### Configuration

Design	Yagi
Band Type	Single
Radiation Pattern	Directional
Polarization	Vertical or Horizontal
Cable Type	Coax Cable
Cable Length	12 in [304.8 mm]
Connector Type	N Female
Number of Ports	1
Lightning Protection	DC Short

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Input VSWR			1.5:1	
Impedance		50		Ohms
Gain		14.5		dBi
Input Power			50	Watts

#### Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	2,400-2,500					MHz
Gain	14.5					dBi
Horizontal Beam Width	30					Degees

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 GHz 15 dBi Yagi Antenna PE51YA1003](#)



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Vertical Beam Width	30	Degees
Maximum Input Power	50	Watts

#### Mechanical Specifications

Radome Material

Polymer

#### Size

Overall Length

18.2 in [462.28 mm]

Width

3 in [76.2 mm]

Height

3 in [76.2 mm]

Mounting Mast Diameter

1.25 to 2 in [31.75 to 50.80 mm]

Weight

1 lbs [453.59 g]

Mechanical Specification Notes:

Radome material is UV-inhibited Polymer.

#### Environmental Specifications

##### Temperature

Operating Range

-20 to +60 deg C

Wind Loading

150 MPH [241.4 KPH]

**Compliance Certifications** (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 GHz 15 dBi Yagi Antenna PE51YA1003](#)

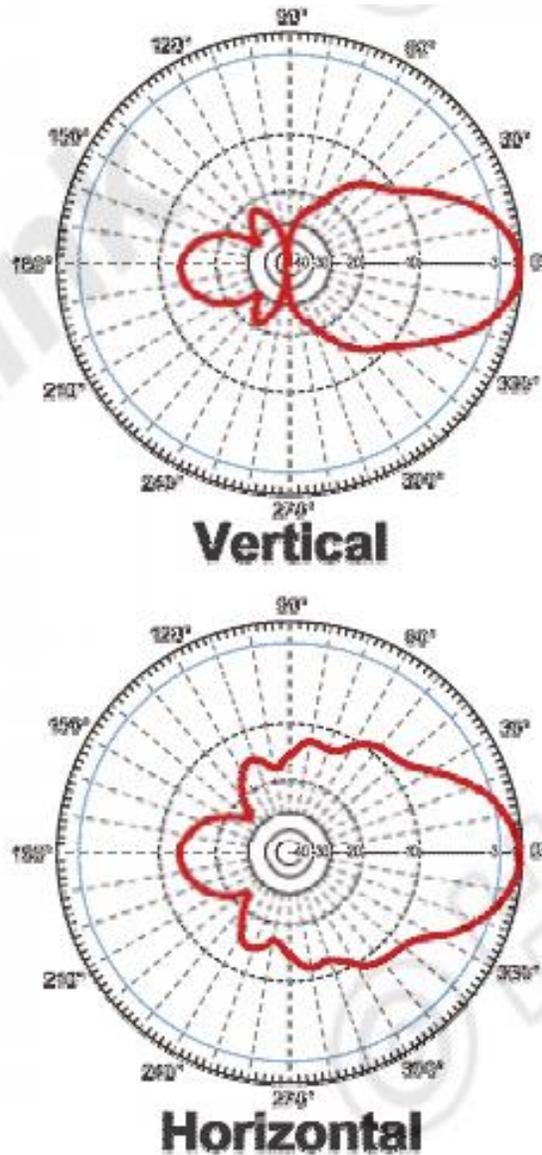


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#### Typical Radiation Pattern



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PE51YA1003

2.4 GHz 15 dBi Yagi Antenna from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4 GHz 15 dBi Yagi Antenna PE51YA1003](https://www.pasternack.com/single-antenna-14.5-dbi-gain-n-pe51ya1003-p.aspx)

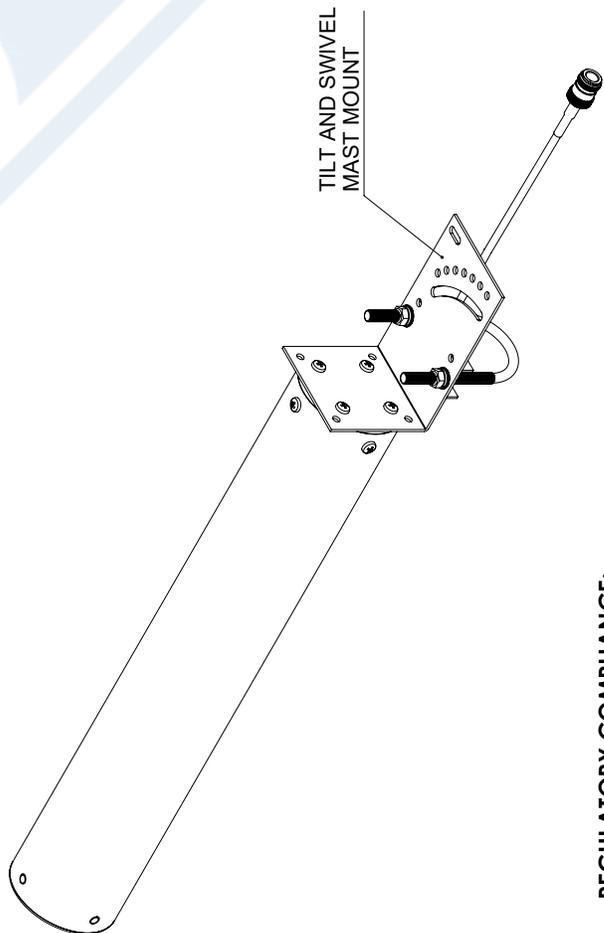
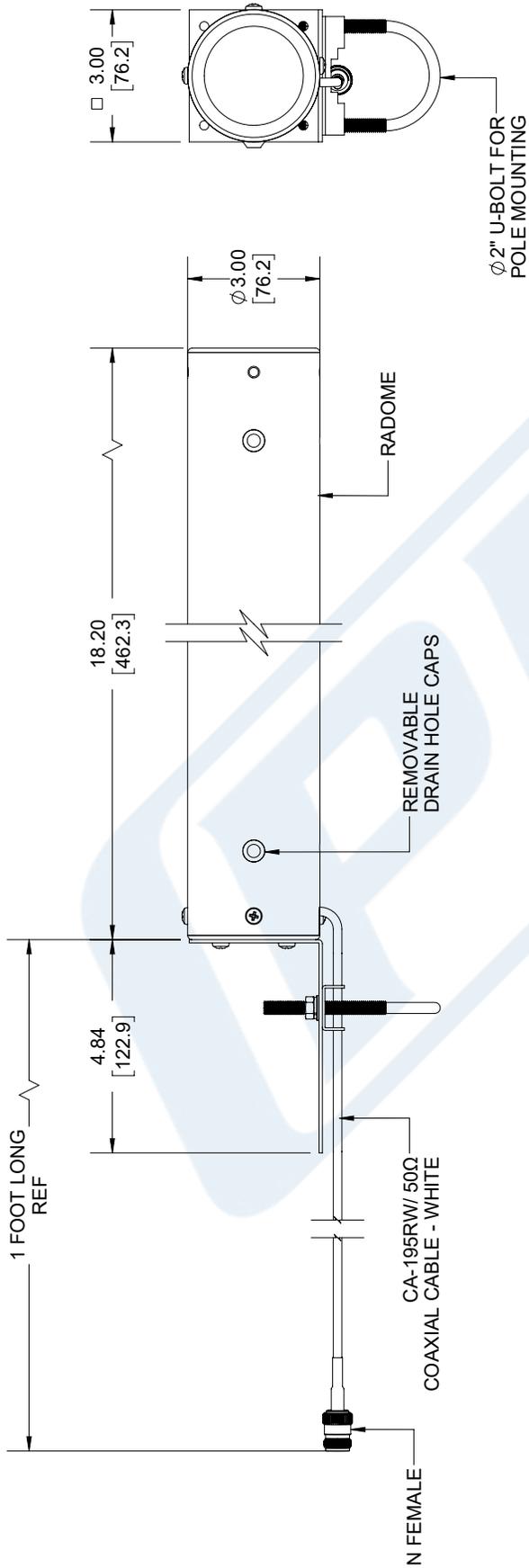
URL: <https://www.pasternack.com/single-antenna-14.5-dbi-gain-n-pe51ya1003-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE51YA1003 CAD Drawing

2.4 GHz 15 dBi Yagi Antenna

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/20/2020	M.MILLER



THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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ITEM NO PE51YA1003

SIZE A

CAGE CODE 53919

DRAWN BY K.DANG

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

.X = ± .2	[5.08]	FRACTIONS	± 1/32
.XX = ± .02	[.51]	ANGLES ± 1°	
.XXX = ± .005	[.13]	CABLE LENGTH (L) TOLERANCES:	
		L ≤ 12 [305]	± .1 [25] / -0
		12 [305] < L ≤ 60 [1524]	± .2 [51] / -0
		60 [1524] < L ≤ 120 [3048]	± .4 [102] / -0
		120 [3048] < L ≤ 300 [7620]	± .6 [152] / -0
		300 [7620] < L	± .9% L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

**REGULATORY COMPLIANCE:**  
EU ROHS DIRECTIVE (MOST RECENT RELEASED VERSION)

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